

The Interim Final Federal Train Horn Rule

Overview of Rule and Its Purpose

Crossing safety. You can all become experts in crossing safety if you understand three critical principles: 1. Trains will not stop for you; 2. Trains will not turn and; 3. It is up to the motor vehicle driver to detect and avoid the train. Trains will kill you if you do not follow these simple principles. **Train horns are an important safety device.**

Trains will blow the horn for all public crossings beginning December 19, 2004 unless a quiet zone is established. Congress enacted the Swift Act in 1994, which directed the Federal Railroad Administration (FRA) to enact rules requiring the sounding of train horns at all crossings unless unspecified safety improvements were met. 49 USC 20153. The proposed rules were finally issued in January 2000. Slightly less than 4 years later, the “Interim Final Rules” were issued.

“Quiet zones” may be created by municipalities. To establish a quiet zone the rules basically require that you show that your crossings will be as safe without train horns as they would be if train horns were blown. According to the FRA, train horns decrease train-vehicle accidents by 66.8%.

Local governments will have two ways of creating a quiet zone:

Show that the lack of the horn does not pose a significant risk with respect to loss of life or serious injury or Implement safety measures to reduce excess risk

The Municipal Governing Body Wants a Quiet Zone – Now what? Read the FRA’s ‘Summary’ of the Rule and the FAQ’s on the FRA web page. Go to <http://www.fra.dot.gov/> and click on Train Horn Rule. The rule itself is quite complex. It will make more sense if you read these materials first.

The ‘quiet zone calculator’. The FRA web site includes a very useful tool called the quiet zone calculator. It allows you to see whether your community already qualifies for a quiet zone and, if not, what you need to do to obtain quiet zone status. Once you select a scenario you must also use the quiet zone calculator to prepare the application for the FRA.

Verify the data. The determination whether a group of crossings qualifies for a quiet zone is based on the predicted likelihood of train-vehicle accidents at the crossings. This probability is based in turn on a number of factors, such as the average daily traffic (ADT) on the roads, the number and speed of trains, and the existing warning devices at the crossings. Errors in this data will skew the predicted number of accidents. If you need to update data, the FRA wants the updates **six months in advance**. The state of Wisconsin prefers that municipalities send corrections to the Wisconsin Department of Transportation. See Mailing List.

“Pre-rule quiet zones” and “New quiet zones”. The Interim Final Rules treat pre-existing quiet zones (communities with whistle ban ordinances in effect on both October 9, 1996 and December 18, 2003) more favorably than communities that want to establish new quiet zones. It is easier to keep a pre-existing quiet zone than it is to qualify for a new one. **IF YOUR COMMUNITY WANTS TO KEEP A PRE-RULE QUIET ZONE, THEN YOU MUST FILE A NOTICE TO THAT EFFECT BY DECEMBER 18, 2004.**

Quiet Zone Risk Index: The average risk index for all public crossings in a proposed quiet zone taking into consideration the increased risk caused by the absence of train horns and any decrease in risk attributable to the use of SSMs or ASMs.

NSRT: The Nationwide Significant Risk Threshold is the average Risk Index of all public, gated crossings in the nation at which train horns are sounded.

Supplementary Safety Measure (SSM): SSMs are engineering improvements, which when installed at crossings within a quiet zone, would reduce the risk of a collision at the crossing. SSMs are installed to reduce the risk level either to the level that would have existed if the train horn were sounded (compensating for the lack of the train horn) or to a level below the Nationwide Significant Risk Threshold.

Alternative Safety Measure (ASM): A safety system or procedure provided by the appropriate traffic control authority which, after individual review and analysis, is determined by the FRA to be an effective substitute for the locomotive horn at specific crossings.

Under the rule there are four types of quiet zones:

1. Pre-rule quiet zones that automatically qualify for continuation.
2. Pre-rule quiet zones that receive a 5- or 8-year grandfather period and require FRA approval to continue beyond the grandfather period.
3. New quiet zones that automatically qualify without FRA approval.
4. New quiet zones that require FRA approval.

Is it really finally Final? Really really?

Are the rules ‘final’? Yes and no. The rules are enforceable one year from the date of publication in the Federal Register (12-18-2003). The rules are final, except that the FRA allowed for a comment period on the ‘interim final rule’. The FRA extended the comment period to April 19, 2004. The final ‘final rule’ will be issued later, probably in the Fall of 2004.

Overview of national uniformity

The Federal railroad Safety Act (FRSA) requires that “Laws, regulations, and orders related to railroad safety and laws, regulations, and orders related to railroad security shall be nationally uniform to the extent practicable.” 49 USC 20106. Once the FRA adopts a rule then states are excluded except insofar as the FRA allows a state role.

Congress mandated that the FRA adopt rules requiring that trains blow their horns at all crossings unless additional safety measures were implemented.

The Interim Final Rule preempts all state and local laws governing the use of train horns.
49 CFR 222.7

Current law in Wisconsin and Why do we care?

OCR has jurisdiction in townships to order the omission of whistling. 192.29 (4). Very rarely exercised – once since 1986.

Trains blow in a repeating pattern for ¼ mile in advance of crossing, regardless of train speed. The pattern is two longs, a short, and a long.

Cities and villages have enacted whistle bans in some 30 municipalities in Wisconsin. These cover some 603 crossings. However, no state law specifically authorizes those ordinances and they might have been subject to challenge under the national uniformity clause.

The Interim Final Rule preempts all state and local laws governing the blowing of train horns, except those relating to private crossings.

The Interim Final Rule - 49 CFR Part 222.

Minimum Requirements for a Quiet Zone – 49 CFR 222.35

Minimum length. The quiet zone must be at least one-half mile in length.

Warning devices. For **new** quiet zones, all public crossings must have automatic flashing lights and gates at a minimum. For **pre-rule** quiet zones, the warning devices can not be downgraded. All crossings in either type of quiet zone must have **advance warning signs** advising drivers approaching the crossing that the horn is not sounded.

Who May establish a Quiet zone? – 49 CFR 222.37

The public road authority may establish quiet zones. If more than one public authority has jurisdiction over roads within a quiet zone then **both** road authorities must agree to the establishment of the quiet zone.

Establishing a Quiet zone – 49 CFR 222.39

The rule allows for automatic establishment of a quiet zone when certain requirements are met. If those requirements are not met, then the rule provides for the FRA to review and approve the establishment of a quiet zone. The requirements are different for new quiet zones and pre-rule quiet zones.

Automatic establishment of a quiet zone.

New quiet zone. All crossings must have automatic flashing lights and gates and either:

After adjusting for the increased risk created by silencing the train horn, the average risk at the crossings is less than the national average for gated crossings where the train horn sounds (National Significant Risk Threshold or “NSRT”); or

Pre-approved Supplementary Safety Measures are made that reduce the risk to a level either less than the NSRT or a level that compensates for loss of the train horn as a warning device. The pre-approved Supplementary safety measures (SSMs) are detailed in Appendix A of the rule.

Supplementary Safety Measure (SSM): SSMs are engineering improvements, which when installed at crossings within a quiet zone, would reduce the risk of a collision at the crossing. SSMs are installed to reduce the risk level either to the level that would have existed if the train horn were sounded (compensating for the lack of the train horn) or to a level below the Nationwide Significant Risk Threshold.

Approved SSMs include:

- Four quadrant gates.
- Medians or channelization devices at gated crossings.
- One-way streets equipped with gates that fully block the street.
- Temporary closure (i.e., nighttime closure).
- Four-Quadrant Gate: Train-activated warning gates that, when lowered, fully block highway traffic from entering the crossing. Gates lower across both approach and departure lanes on both sides of the crossing.

For automatically qualifying quiet zones, the community simply provides the notices as set forth in 222.43 and the quiet zone automatically goes into effect. The effective date must be at least 21 days after the date of the notice.

Pre-rule Quiet Zones.

Existing “whistle bans” can be converted to quiet zones (Pre-Rule Quiet Zones) if:

The average risk at the crossings is less than the nationwide risk level (NSRT); or

The average risk is less than twice the NSRT and no relevant collisions have occurred within the past 5 years.

For automatically qualifying pre-rule quiet zones, the community simply provides the notices as set forth in 222.43 and the quiet zone automatically remains in effect. This notice **must be provided by December 18, 2004.**

Establishment of a quiet zone requiring FRA approval

Pre-rule Quiet Zones – 49 CFR 222.41 and 222.43.

1. The community must serve the proper notice that it intends to retain the pre-rule quiet zone by **December 18, 2004**. The notice must be served by certified mail return receipt requested upon the FRA, the railroad, the Office of the Commissioner of Railroads, the road authority, and all landowners having control over any private crossings within the quiet zone. However, do **not** wait until December 17 to put the notice in the mail – the sooner the better.

It is important to note that **adding new crossings to a pre-rule quiet zone cause the quiet zone to lose its grandfathered status. Likewise, increasing the hours of the whistle ban will also end the grandfathered status.**

This notice must include a list of all at-grade crossings in the quiet zone identified by their US DOT National Highway-Rail Grade Crossing Inventory Number and the street or highway name. The rule also requires other supporting information to be submitted. See, 49 CR 222.43 (a) (3).

2. Then, by **December 18, 2006**, the community must submit a detailed safety improvement plan showing how it plans to improve safety to compensate for lack of the train horn as a warning device (or at least to reduce average risk to below the NSRT). **However**, if the safety improvements will require FRA approval to retain the quiet zone, then the application should be submitted by **June 19, 2006**.
3. Then, by **December 18, 2007**, the community must have commenced the physical safety improvements at a portion of the crossings or the state has participated in quiet zone improvements in one or more quiet zones in the state.
4. The safety improvements must be implemented by **December 18, 2008** in order to retain quiet zone status. If the state submits a statewide plan for implementing improvements at pre-rule quiet zones that do not qualify for automatic approval, then the grandfather period is extended to **December 18, 2011**.

New Quiet Zones Requiring FRA Approval.

All crossings must have automatic flashing lights and gates and Alternative Safety Measures (ASMs) or a combination of ASMs and SSMS are implemented that reduce the risk to a level either less than the NSRT or a level that compensates for loss of the train horn as a warning device.

Alternative Safety Measure (ASM): A safety system or procedure provided by the appropriate traffic control authority which, after individual review and analysis, is determined by the FRA to be an effective substitute for the locomotive horn at specific crossings.

ASMs include:

- Modified SSMS (see definition)
- Programmatic law enforcement
- Programmatic education
- Photo enforcement

Process for establishing a new quiet zone requiring FRA approval – 49 CFR 222.39

The community must apply to the Associate Administrator of the FRA. The application must include:

1. An inventory of the crossings in the quiet zone.
2. Information describing the existing safety devices at each crossing.
3. Detailed information concerning the safety improvements that will be implemented.
4. A commitment that the safety improvements will be made.
5. Demonstrate that the safety improvements will reduce the risk to a level either less than the NSRT or a level that compensates for loss of the train horn as a warning device.
6. Be provided to the parties listed in 222.43.

After the FRA approves the quiet zone application, the community must comply with the notice requirements of 222.43, including the beginning date of the quiet zone. The beginning date must be at least 21 days after the date of the notice.

Once a quiet zone forever a quiet zone? 49 CFR 222.51

No. The FRA will review and may terminate quiet zones under 222.51. The NSRT is a number expressing the nationwide risk at crossings where the train horn is blown. This number will change annually. It is possible that the NSRT will drop below your quiet zone risk index and jeopardize your quiet zone. The procedures to retain a quiet zone when that happens are set forth in 222.51. The FRA will notify the community that the quiet zone will terminate 6 months after the date of notice unless remedial steps are taken.

Likewise, if a pre-rule quiet zone is established on the basis that no relevant collisions occurred in the 5 years preceding December 18, 2003 and a 'relevant collision' occurs, then the FRA will notify the community that the quiet zone will terminate 6 months after the date of notice unless remedial steps are taken.

FRA will **not** conduct annual reviews of quiet zones where Supplementary Safety Measures have been implemented at all crossings or where the risk level has been reduced to fully compensate for the omission of the train horn.

Periodic Updates – 49 CFR 222.47.

For quiet zones with Supplementary Safety Measures at all crossings, the community must provide an update to the FRA between 4 ½ and 5 years from the original date of notice given under 222.43. The update must affirm that the quiet zone still meets the requirements and provide an updated crossing inventory. The updates must be provided every 5 years.

For quiet zones **without** Supplementary Safety Measures at all crossings, the community must provide an update to the FRA between 2 ½ and 3 years from the original date of notice given under 222.43. The update must affirm that the quiet zone still meets the requirements and provide an updated crossing inventory. The updates must be provided every 3 years.

Appeals from Determination of the FRA Associate Administrator

Decisions of the FRA Associate Administrator granting or denying a quiet zone application may be appealed to the FRA Administrator. 222.57. Presumably this administrative appeal is a prerequisite for appeal to the federal courts.

Who is going to pay for these safety improvements?

The municipality should assume that it will have to pay for all safety improvements to establish a quiet zone. No federal funding has been appropriated for these improvements.

Automatic flashing lights and gates are expensive. A garden-variety installation with no complications costs about \$130,000 to \$150,000 per crossing. These costs can escalate substantially, for example where multiple crossings are located close together.

The state does have approximately \$5.5 million per year for crossing safety improvements, but this funding will **not** be used in order to establish a quiet zone. It is possible that the state will provide funding for new automatic flashing lights and gates at specific crossings where safety considerations, not getting rid of train horns, warrant the expenditure.

Aside from paying for signals and gates, the municipality will also need to allocate time and effort to the establishment of a quiet zone in order to gather and verify data, to analyze the options, and make the required application.

FRA Web site

FRA has developed an excellent web site. I highly recommend that you read their 7-page summary of the rule and the FAQ section **before** you delve into the rule itself. If your municipal clients want to obtain or retain a quiet zone you will need to learn the rule, but the rule is quite complicated for most communities.

The web site also has a 'quiet zone calculator' to assist you in determining what, if anything, you need to do to retain a quiet zone.

<http://www.fra.dot.gov/>

Miscellaneous Provisions and Comments

Private Crossings. The Interim Final Rule does **not** require trains to blow their horns at private crossings. 222.25. Private crossings may be included in a quiet zone. However, private crossings that are included in a **new** quiet zone must be reviewed by a diagnostic team. The rule also sets forth the required signs for private crossings that are included in a quiet zone. The rule does **not** preempt local or state laws relating to private crossings.

Consider creating multiple quiet zones if you can not get the quiet zone risk index low enough at a feasible cost. Leaving a particularly risky crossing out of a quiet zone may significantly reduce the risk at adjacent quiet zones. Trains will still blow the horn at any crossing not included in a quiet zone, but half a loaf is better than none.

The Interim Final Rule sets a **maximum decibel level** – prior law only set a minimum – and improves the way the sound level is measured.

Train horns will be blown for a maximum of 20 seconds prior to the train reaching a crossing and never more than ¼ mile. This change reverses one irony of current practices whereby slower trains blow their horns for a longer time period before reaching the crossing.

Train horns may still be sounded in certain circumstances. Train horns will still be blown for an emergency, if the automatic flashing lights are not operating, and to warn track workers.

Unintended Consequences?

It appears likely that the promulgation of the train horn rule will **increase** the total number of crossings included in quiet zones. My assumption is all or nearly all communities with whistle bans will want to keep them and there are a number of communities that will be seeking new quiet zones. However, it is also likely that crossings will be made safer through implementation of Supplementary Safety Measures and Alternative Safety Measures.

49 USC § 20153. Audible warnings at highway-rail grade crossings

(a) Definitions. As used in this section--

- (1) the term "highway-rail grade crossing" includes any street or highway crossing over a line of railroad at grade;
- (2) the term "locomotive horn" refers to a train-borne audible warning device meeting standards specified by the Secretary of Transportation; and
- (3) the term "supplementary safety measure" refers to a safety system or procedure, provided by the appropriate traffic control authority or law enforcement authority responsible for safety at the highway-rail grade crossing, that is determined by the Secretary to be an effective substitute for the locomotive horn in the prevention of highway-rail casualties. A traffic control arrangement that prevents careless movement over the crossing (e.g., as where adequate median barriers prevent movement around crossing gates extending over the full width of the lanes in the particular direction of travel), and that conforms to standards prescribed by the Secretary under this subsection, shall be deemed to constitute a supplementary safety measure. The following do not, individually or in combination, constitute supplementary safety measures within the meaning of this subsection: standard traffic control devices or arrangements such as reflectorized crossbucks, stop signs, flashing lights, flashing lights with gates that do not completely block travel over the line of railroad, or traffic signals.

(b) Requirement. The Secretary of Transportation shall prescribe regulations requiring that a locomotive horn shall be sounded while each train is approaching and entering upon each public highway-rail grade crossing.

(c) Exception. (1) In issuing such regulations, the Secretary may except from the requirement to sound the locomotive horn any categories of rail operations or categories of highway-rail grade crossings (by train speed or other factors specified by regulation)--

- (A) that the Secretary determines not to present a significant risk with respect to loss of life or serious personal injury;
- (B) for which use of the locomotive horn as a warning measure is impractical; or
- (C) for which, in the judgment of the Secretary, supplementary safety measures fully compensate for the absence of the warning provided by the locomotive horn.

(2) In order to provide for safety and the quiet of communities affected by train operations, the Secretary may specify in such regulations that any supplementary safety measures must be applied to all highway-rail grade crossings within a specified distance along the railroad in order to be excepted from the requirement of this section.

(d) Application for waiver or exemption. Notwithstanding any other provision of this subchapter [49 USCS §§20131 et seq.], the Secretary may not entertain an application for waiver or exemption of the regulations issued under this section unless such application shall have been submitted jointly by the railroad carrier owning, or controlling operations over, the crossing and by the appropriate traffic control authority or law enforcement authority. The Secretary shall not grant any such application unless, in the judgment of the Secretary, the application demonstrates that the safety of highway users will not be diminished.

49 USC 20153 (continued)

(e) Development of supplementary safety measures. (1) In order to promote the quiet of communities affected by rail operations and the development of innovative safety measures at highway-rail grade crossings, the Secretary may, in connection with demonstration of proposed new supplementary safety measures, order railroad carriers operating over one or more crossings to cease temporarily the sounding of locomotive horns at such crossings. Any such measures shall have been subject to testing and evaluation and deemed necessary by the Secretary prior to actual use in lieu of the locomotive horn.

(2) The Secretary may include in regulations issued under this subsection special procedures for approval of new supplementary safety measures meeting the requirements of subsection (c)(1) of this section following successful demonstration of those measures.

(f) Specific rules. The Secretary may, by regulation, provide that the following crossings over railroad lines shall be subject, in whole or in part, to the regulations required under this section:

- (1) Private highway-rail grade crossings.
- (2) Pedestrian crossings.
- (3) Crossings utilized primarily by nonmotorized vehicles and other special vehicles. Regulations issued under this subsection shall not apply to any location where persons are not authorized to cross the railroad.

(g) Issuance. The Secretary shall issue regulations required by this section pertaining to categories of highway-rail grade crossings that in the judgment of the Secretary pose the greatest safety hazard to rail and highway users not later than 24 months following November 2, 1994. The Secretary shall issue regulations pertaining to any other categories of crossings not later than 48 months following November 2, 1994.

(h) Impact of regulations. The Secretary shall include in regulations prescribed under this section a concise statement of the impact of such regulations with respect to the operation of section 20106 of this title (national uniformity of regulation).

(i) Regulations. In issuing regulations under this section, the Secretary--

- (1) shall take into account the interest of communities that--
 - (A) have in effect restrictions on the sounding of a locomotive horn at highway-rail grade crossings; or
 - (B) have not been subject to the routine (as defined by the Secretary) sounding of a locomotive horn at highway-rail grade crossings;
- (2) shall work in partnership with affected communities to provide technical assistance and shall provide a reasonable amount of time for local communities to install supplementary safety measures, taking into account local safety initiatives (such as public awareness initiatives and highway-rail grade crossing traffic law enforcement programs) subject to such terms and conditions as the Secretary deems necessary, to protect public safety; and
- (3) may waive (in whole or in part) any requirement of this section (other than a requirement of this subsection or subsection (j)) that the Secretary determines is not likely to contribute significantly to public safety.

(j) Effective date of regulations. Any regulations under this section shall not take effect before the 365th day following the date of publication of the final rule.

National Uniformity Clause

49 USC Sec. 20106. National uniformity of regulation

Laws, regulations, and orders related to railroad safety and laws, regulations, and orders related to railroad security shall be nationally uniform to the extent practicable. A State may adopt or continue in force a law, regulation, or order related to railroad safety or security until the Secretary of Transportation (with respect to railroad safety matters), or the Secretary of Homeland Security (with respect to railroad security matters), prescribes a regulation or issues an order covering the subject matter of the State requirement. A State may adopt or continue in force an additional or more stringent law, regulation, or order related to railroad safety or security when the law, regulation, or order--

- (1) is necessary to eliminate or reduce an essentially local safety or security hazard;
- (2) is not incompatible with a law, regulation, or order of the United States Government; and
- (3) does not unreasonably burden interstate commerce.

“Train Horn Rule” Glossary

Quiet Zone: A quiet zone is a section of a rail line that contains one or more consecutive public crossings at which locomotive horns are not routinely sounded.

Public Highway-Rail (Grade) Crossing: A location where a public highway, road, or street crosses railroad tracks at grade. For this rule, this includes crossings where a public authority maintains the roadway on at least one side of the crossing.

Private Highway-Rail (Grade) Crossing: A location where a private roadway crosses railroad tracks at grade.

Diagnostic Team: A group of qualified or specially-trained individuals assembled to make objective expert judgements about physical and or operating conditions at highway-rail crossings. In the context of this rule, a diagnostic team assesses grade crossing safety requirements according to safety management principles.

E.O. 15 (Emergency Order 15): Emergency Order 15, issued in 1991, requires the Florida East Coast Railroad (FEC) to sound locomotive horns at all public highway-rail grade crossings. The Emergency Order preempted state and local laws that permitted nighttime prohibitions on the use of locomotive horns.

Environmental Impact Statement (EIS): Environmental Impact Statements are required of federal agencies for major projects or legislative proposals that may significantly affect the environment. These statements describe the positive and negative effects of the proposed undertaking and cite possible alternative actions. Impact Statements are required by the National Environmental Policy Act. The EPA reviews and responds to filed impact statements and makes available a national EIS filing system as well as publishing a weekly notice of EIS documents available for review.

MUTCD: *The Manual on Uniform Traffic Control Devices*; a guidance document published by the Federal Highway Administration (FHWA) establishing specifications for highway signs, signals, and pavement markings.

FAA Reauthorization Act of 1996: This legislation added two paragraphs to 49 U.S.C. 20153 (the section of the United States Code requiring this rulemaking). One paragraph required that FRA take into account the interests of communities that had whistle bans in effect during a specified time period. The second required that any rule issued under section 20153 can not be effective until at least 365 days after its publication in the Federal Register.

Supplementary Safety Measure (SSM): SSMs are engineering improvements, which when installed at crossings within a quiet zone, would reduce the risk of a collision at the crossing. SSMs are installed to reduce the risk level either to the level that would have existed if the train horn were sounded (compensating for the lack of the train horn) or to a level below the Nationwide Significant Risk Threshold.

Approved SSMs include:

- Four quadrant gates.
- Medians or channelization devices at gated crossings.
- One-way streets equipped with gates that fully block the street.
- Temporary closure (i.e., nighttime closure).
- Four-Quadrant Gate: Train-activated warning gates that, when lowered, fully block highway traffic from entering the crossing. Gates lower across both approach and departure lanes on both sides of the crossing.

Alternative Safety Measure (ASM): A safety system or procedure provided by the appropriate traffic control authority which, after individual review and analysis, is determined by the FRA to be an effective substitute for the locomotive horn at specific crossings.

ASMs include:

- Modified SSMs (see definition)
- Programmatic law enforcement
- Programmatic education
- Photo enforcement

Modified SSM: An SSM that has in some way been adjusted to accommodate unique circumstances existing at a specific crossing and no longer conforms to the SSM requirements. Modified SSMs are considered ASMs. An example would be traffic channelization devices that due to a nearby intersection are only 45 feet in length instead of the required 60 feet.

Non-engineering ASM: A consistent and systematic program of traffic law enforcement, public education programs, or a combination thereof, that produces a measurable reduction of risk at quiet zone grade crossings.

Risk Index: The predicted cost to society of casualties that are expected to result from collisions at an individual crossing.

Quiet Zone Risk Index: The average risk index for all public crossings in a proposed quiet zone taking into consideration the increased risk caused by the absence of train horns and any decrease in risk attributable to the use of SSMs or ASMs.

NSRT: The Nationwide Significant Risk Threshold is the average Risk Index of all public, gated crossings in the nation at which train horns are sounded.

Wayside Horn: A stationary horn located at a highway-rail grade crossing that is designed to provide audible warning to oncoming motorists when a train is approaching. The horn is controlled by the same track circuits that operate the automatic warning devices at the crossing.

Whistle ban or Pre-Rule Quiet Zone: A whistle ban is a local prohibition of the sounding of locomotive horns at specific highway-rail grade crossings. Historically, Whistle bans were established by local ordinance or through agreements with specific railroads in accordance with existing state law. At whistle ban crossings, no specific safety improvements have been made to compensate for the absence of the audible warning. Pre-Rule Quiet Zones established under this rule may only consist of Whistle Ban crossings that were in effect on October 9, 1996 and on December 18, 2003

Relevant collision: A highway-rail crossing collision that FRA believes could be prevented by sounding the train horn. Specifically, the term excludes collisions with motor vehicles resulting from an activation failure of an active grade crossing warning system; collisions in which there is no driver in the motor vehicle; and collisions where the highway vehicle struck the side of the train beyond the fourth locomotive unit or rail car.

FRA Summary

49 U.S.C. 20153.

Disclaimer: This is a summary of the interim final rule for initial briefing purposes only. Entities subject to the rule should refer to the rule text as published in the Federal Register on December 18, 2003.

THE “TRAIN HORN” RULE

Summary of the Interim Final Rule

1. Overview:

- Announcing publication December 18, 2003, of the Interim Final Rule on Use of Locomotive Horns at Highway-Rail Grade Crossings. Purposes:
 - . Ensure a high level of public safety;
 - . Respond to the many communities that have continued to press for relief from unwanted horn noise; and
 - . Take into consideration the interests of localities with *existing* whistle bans.
- Currently use of the horn at highway-rail crossings is governed by state law and railroad operating rules. When this rule is effective, it will determine when the horn is sounded at public crossings (and private crossings within “quiet zones”).
- This Interim Final Rule was mandated by law¹, and was issued by the Federal Railroad Administration (FRA) after review of almost 3,000 public comments on the Notice of Proposed Rulemaking (NPRM) (65 FR 2230) and the Draft Environmental Impact Statement published January 13, 2000.
- The rule requires that the locomotive horn be sounded at public highway-rail crossings, but provides several exceptions to that requirement.
- Local public authorities may establish, or request the approval of, quiet zones in which train horns may not be routinely sounded. The details for establishment of quiet zones differ depending on the type of quiet zone to be created (Pre-Rule or New) and the type of safety improvements implemented (if required).
- Horns may continue to be silenced at Pre-Rule Quiet Zones, provided certain actions are taken.
- By law, the rule may not go into effect until December 18, 2004.
- Because FRA has made numerous important changes in response to public input, FRA will receive additional comments on this interim final rule. That process should not delay implementation of the rule.

2. Requirement to sound the locomotive horn:

- Outside of quiet zones, railroads must sound the horn 15-20 seconds prior to arrival at the crossing, but not more than 1/4 mile in advance of the crossing.

Note: Most State laws and railroad rules currently require that the horn be sounded for 1/4 mile in advance of the crossing. Under the rule, for trains running at less than 45 mph, this will reduce the time and distance over which the horn is sounded. This will reduce noise impacts on the local community.

- The pattern for sounding the horn will remain as it currently exists today (two long, one short, one long repeated or prolonged until the locomotive traverses the crossing).
- Locomotive engineers will retain the latitude to vary this pattern where crossings are closely spaced; and they will also be empowered to sound the horn in the case of an emergency, even in a quiet zone.
- The rule addresses use of the horn only with respect to highway-rail crossings. Railroads remain free to use the horn for other purposes as prescribed in railroad operating rules on file with FRA, and railroads must use the horn as specified in other FRA regulations (in support of roadway worker safety and in the case of malfunctions of highway-rail warning devices).
- The rule prescribes both a minimum and **maximum** sound level for the train horn. The minimum level is retained at 96db(A), and the new maximum will be 110 db(A). This range will permit railroads to address safety needs in their operating territory (see discussion in the preamble).
- The protocol for testing the horn will be altered to place the sound-level meter at a height of 15 feet above top of rail, rather than the current 4 feet above the roadbed.

Note: The effect of this change will be to permit center-mounted horns to be “turned down” in some cases. The previous test method was influenced by the “shadow effect” created by the body of the locomotive to indicate a lower sound level than would otherwise be expected several hundred feet in front of the locomotive (where the crossing and approaching motorists are located or found).

- The effect of these changes will be to reduce horn noise for 3.4 million of the 9.3 million people currently affected by train horn noise.

3. Creation of quiet zones:

- The rule provides significant flexibility to create quiet zones, both where there are existing whistle bans and in other communities, as well.
- The Interim Final Rule adds a new concept that permits implementation of quiet zones in low-risk situations without the necessity to add safety improvements.

This concept utilizes a risk index approach that estimates expected safety outcomes (that is, the likelihood of a fatal or non-fatal casualty at a crossing).

Risk may be averaged over crossings in a proposed quiet zone.

Average risk within the proposed quiet zone is then compared with the average risk at gated train horn crossings nationally (the “National Significant Risk Threshold” or “NSRT”). FRA will compute the NSRT annually.

The effect of this approach is that horns can remain silenced in over half of Pre-Rule Quiet Zones without significant expense; and many New Quiet Zones can be created without significant expense where flashing lights and gates are already in place at the crossings.

- If the risk index for a proposed New Quiet Zone exceeds the NSRT, then supplementary or alternative safety measures must be used to reduce that risk (to fully compensate for the absence of the train horn or to reduce risk below the NSRT).

- The interim final rule—

T Retains engineering solutions known as “supplementary safety measures” for use without FRA approval.

T Adds explicit flexibility for adaptation of “supplementary safety measures” to receive credit as “alternative safety measures.” For instance, shorter channelization arrangements can be used with reasonable effectiveness estimates.

The rule neither approves nor excludes the possibility of relying upon regional education and enforcement programs with alternative verification strategies. FRA is providing funding in support of an Illinois Commerce Commission-sponsored regional program.

The law provides authority for use of new techniques when they have been demonstrated to be effective.

Continues education and enforcement options, including photo enforcement, subject to verification of effectiveness.²

- The public authority responsible for safety and maintenance of the roadway that crosses the railroad tracks is the only entity that can designate or apply for quiet zone status.

- FRA will provide a web-based tool for communities to use in performing “what if” calculations and preparing submissions. The tool may be found at <http://www.fra.dot.gov>.

- In order to ensure proper application of the risk index, the National Highway-Rail Crossing Inventory must be updated by States and railroads. In the absence of timely filings by those parties, local authorities may file updated inventory information, and railroads must cooperate in providing railroad-specific data.

- FRA regional personnel will be available to participate in diagnostic teams evaluating options for quiet zones.

- Once a quiet zone is established (including the continuation of Pre-Rule Quiet Zones pending any required improvements), the railroad is barred from routine sounding of the horn as a warning at the affected crossings.

- See below for discussion of Pre-Rule Quiet Zones and New Quiet Zones.

Horns may continue to be silenced at Pre-Rule Quiet Zones if—

- . The average risk at the crossings is less than the NSRT; or

. The average risk is less than twice the NSRT and no relevant collisions have occurred within the past 5 years; or

. The community undertakes actions to compensate for lack of the train horn as a warning device (or at least to reduce average risk to below the NSRT).

Train horns will not sound in existing whistle ban areas if authorities state their intention to maintain “Pre-Rule Quiet Zones” and do whatever is required (see above) within **5 years** of publication (**8 years** if the State agency provides at least some assistance to communities in that State).

A “Pre-Rule Quiet Zone” is a quiet zone that contains one or more consecutive grade crossings subject to a whistle ban that has been actively enforced or observed as of October 9, 1996 and December 18, 2003.

To secure Pre-Rule Quiet Zone status, communities must file a notice with FRA within 1 year of publication and a plan within 3 years of publication (if improvements are required).

New Quiet Zones may be created if–

. All public crossings are equipped with flashing lights and gates; and either–

After adjusting for excess risk created by silencing the train horn, the average risk at the crossings is less than the NSRT; or Safety improvements are made that will compensate for loss of the train horn as a warning device (or at least to reduce average risk to below the NSRT).

Detailed instructions for establishing or requesting recognition of a quiet zone are provided in the regulation.

4. Length of quiet zones:

- Generally, a quiet zone must be at least ½ mile in length and may include one or more crossings.
- Pre-Rule Quiet Zones may be retained at their present length as of the date of publication of the rule, even if less than ½ mile. A Pre-Rule Quiet Zone that is greater than ½ mile may be reduced in length to no less than ½ mile and retain its pre-rule status. However, if its length is increased from pre-rule length, pre-rule status will not be retained.

5. Supplementary and alternative safety measures:

- Supplementary safety measures are engineering improvements that clearly compensate for the absence of the train horn. If employed at every crossing in the quiet zone, they automatically qualify the quiet zone (subject to reporting requirements).

T Temporary closure used with a nighttime-only zone;

T Four-quadrant gates;

T Channelization arrangements (i.e., non-mountable curb or mountable curb with delineators) at least 100 feet in length on each side (60 ft. where there is an intersecting roadway);

T One-way street with gate across the roadway.

- Alternative safety measures may be applied such that the combination of measures at one or more crossings reduces the average risk by the required amount across the quiet zone (so-called “corridor approach”).

T Any supplementary safety measure or reasonable variation of a supplementary safety measure (e.g., barrier gate and median with higher estimate of effectiveness; shorter channelization with reduced estimate of effectiveness);

T Education and/or enforcement programs (including photo enforcement) with verification of effectiveness; or

T Combination of the above.

6. Recognition of the automated wayside horn:

- The rule authorizes use of the automated wayside horn at any crossing with flashing lights and gates (inside or outside a quiet zone) as a one-to-one substitute for the train horn.
- Certain technical requirements apply, consistent with the successful demonstrations of this technology.
- The Federal Highway Administration (FHWA) may treat wayside horns as traffic control devices. Communities interested in employing this option should contact FHWA to determine the need for an experimental designation.

7. Special circumstances:

- A community or railroad that views the provisions of the rule inapplicable to local circumstances may request a waiver from the rule.
- A railroad or community seeking a waiver must first consult with the other party and seek agreement on the form of relief, but if agreement cannot be achieved the party may still request the relief.
- FRA grants waivers if in the public interest and consistent with the safety of highway and railroad users of the crossings.

8. Further proceedings on the rule:

- Because FRA has made numerous changes from the proposed rule in order to respond to public comments, FRA is providing an additional, brief opportunity for comment.
- Comments will be accepted through April 19, 2004, (first business day following the Federal holiday on Monday).

- FRA anticipates that the rule will be effective, with any warranted adjustments, on December 18, 2004.

Additional information, including the full text of the Interim Final Rule, the Final Environmental Impact Statement, and background documents, are available at <http://www.fra.dot.gov>.

Quiet zone Notice List from the Federal Railroad Administration (FRA)

Federal Railroad Administration
Associate Administrator for Safety
RRS-1 Mail Stop 25
1120 Vermont Avenue NW
Washington DC 20590
Fax: 202-493-6309
Phone: 202-493-6300

Federal Railroad Administration
Tammy Wagner, Regional Crossing and Trespasser Manager
200 West Adams, Suite 310
Chicago IL 60606
312-353-6203

Tammy.wagner@fra.dot.gov

Note: Do not send your quiet zone application to Tammy Wagner. She is available to answer questions and provide information. The application must be submitted to the Associate Administrator.

Office of the Commissioner of Railroads
Douglas S. Wood, Attorney
PO Box 8968
Madison WI 53708-8968
608-266-9563
doug.wood@psc.state.wi.us

Wisconsin Department of Transportation
Ron Adams, Director
Bureau of Railroad and Harbors
4802 Sheboygan Avenue, Room 701
Madison WI 53702
608-267-9284
ron.adams@dot.state.wi.us

Wisconsin & Southern Railroad Co.
Ben Meighan
1890 E Johnson Street
Madison WI 53704
bmeighan@wsorrailroad.com
608-243-9101 xt 201

CP Rail (Soo Line Railroad Co.)
Jim Krieger, Engineer for Public Works
501 Marquette Avenue South
Minneapolis, MN 55402
612-904-5994
jim_krieger@cpa.ca

(Mr. Krieger is responsible for quiet zone projects within Indiana, Illinois, Wisconsin, North Dakota, Minnesota)

BNSF

Mr. Lyn Harley, Director of Public Projects

4515 Kansas Avenue

Kansas City, MO 66106

Phone: 913-551-4540

Fax: 913-551-4797

Lyn_hartley@bnsf.com

(Mr. Lyn Hartley is BNSF's designated quiet zone project coordinator for the entire system)

UNION PACIFIC - WI and MN

Gary Wilwerding, Manager Public Projects

Union Pacific Railroad Co.

301 W LAKE ST

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Phone 708-649-5210

gwilwerding@up.com

Union Pacific Railroad Co.

Steve Berki, Director Industry/Public Works

1416 Dodge Street, Room 940

Omaha, NE 68179

swberki@up.com

(Mr. Berki is responsible for quiet zone projects along Union Pacific's entire system)

CN (Wisconsin Central Ltd. and Sault Ste. Marie Bridge Co.)

Mr. Michael Barron

CN

17641 South Ashland

Homewood, IL 60430

Phone: 708-332-3954

Michael.barron@cn.ca

(Mr. Barron is the point person for CN)

Steve Strachen, Chief Transportation Officer

Amtrak

15 South Poplar Street

Wilmington, DE 19801

Phone: 302-683-2410

Email: strachs@amtrak.com